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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/981,654 01/08/98 KANEKO

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023850 MM91/0504  
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EXAMINER

NGUYEN, D  
ART UNIT  PAPER NUMBER

2871  
DATE MAILED:

05/04/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

## Office Action Summary

Application No.  
08/981,654

Applicant(s)

Kaneko et al.

Examiner

Dung Nguyen

Art Unit

2871



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1)  Responsive to communication(s) filed on Apr 23, 2001

2a)  This action is FINAL. 2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

4)  Claim(s) 1 and 3-18 is/are pending in the application.

4a) Of the above, claim(s) 4-18 is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1 and 3 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved.

12)  The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119

13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) All b) Some\* c) None of:

1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

### Attachment(s)

15)  Notice of References Cited (PTO-892) 18)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

16)  Notice of Draftsperson's Patent Drawing Review (PTO-948) 19)  Notice of Informal Patent Application (PTO-152)

17)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). 13 20)  Other: \_\_\_\_\_

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A request for continued examination (RCE) under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/23/2001 has been entered.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 3 are rejected under 35 U.S.C. 102(a) as being anticipated by Amstutz et al., US Patent No. 4,634,229, in view of Furuta, US Patent No. 5,699,133.

Regarding claim 1, Amstutz et al., figure 1, disclose a liquid crystal display (LCD) apparatus having:

- A pair of transparent substrates (1, 2), each having parallel strips of electrode layers (6, 7);
- A super twist nematic liquid crystal (5) is sandwiched between the pair of substrates (1, 2), wherein the total twisted angle ( $\phi$ ) of liquid crystal molecules is between 180° and 360°;

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• A pair of polarizers (10, 11) is disposed to the outside of the pair of substrates (1, 2), wherein the polarizers having absorption axes which are inherently orthogonal to each other and the absorption axes inherently being angled 45° respect to a direction of the orientation of liquid crystal molecules in an intermediate portion in a direction of thickness of the liquid crystal layer (i.e.,  $\phi = 190^\circ$ ,  $\beta = 45^\circ$ ,  $\gamma = 45^\circ$  and  $\beta + \gamma = 90^\circ$ ).

Amstutz et al. do not disclose the LCD can be driven by applying a voltage of 10 to 20V. However, Furuta does disclose that the applied voltage can be 10 to 20V (figure 4). Therefore, it would have been obvious to one skill in the art at the time invention was made to apply a voltage as shown by Furuta in the Amstutz et al. device since it is a common practice in the art to use a high voltage for a liquid crystal shutter in order to obtain a high light transmission (col. 3, ln. 26).

Regarding claim 3, although Amstutz et al. do not disclose the value of  $\Delta n.d$  that lies within a range of 600 to 900nm, Amstutz et al. do disclose the range of 800 to 1200nm for the  $\Delta n.d$  (claim 6). Therefore, such disclosed range in Amstutz et al. makes possible the claimed range of 600 to 900nm and overlapping ranges are at least obvious. *In re Malagari*, 499 Fed.2d 1297, 182 USPQ 549 CCPA 1974.

### ***Conclusion***

3. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dung Nguyen whose telephone number is (703) 305-0423. The fax phone number for this Group is (703) 308-7722.

Any information of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-0956.

DN  
04/30/2001

*William L. Sikes*  
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*Group 2871*